

Amendments to the Claims

The listing of claims will replace all prior versions, and listings of claims in the application.

1. (currently amended) A method for ~~separating~~ isolating a protein molecule or a population of protein or peptide molecules ~~from high molecular weight molecules and structures~~, comprising:

(a) contacting one or more cells comprising protein or peptide molecules with at least one pore-containing matrix, ~~wherein said matrix retards the flow of high molecular weight molecules or structures, but does not retard the flow of soluble protein and peptide molecules~~, wherein said matrix comprises i) pores having an average size ranging from about 0.1 microns to 1,000 microns in diameter and ii) one or more lysis/disruption/permeabilization compositions or compounds in an amount sufficient to lyse, disrupt or permeabilize the cells; and

(b) ~~subjecting said matrix to conditions that promote the flow of material through said matrix, wherein said conditions are sufficient to allow said protein molecule or said population of protein or peptide molecules to pass through the matrix while said high molecular weight molecules or structures are trapped or bound to said matrix;~~ thereby ~~separating~~ isolating said protein or peptide molecules ~~from said high molecular weight molecules and structures.~~

2. (cancelled)

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